Section II-iii-N

Highly Erodible Land

General

The basis for identifying highly erodible land is the erodibility index of a soil map unit. The erodibility index of a soil is determined by dividing the potential erodibility for each soil by the soil loss tolerance (T) value established for the soil. The T value represents the maximum annual rate of soil erosion that could take place without causing a decline in long-term productivity. A soil map unit with an erodibility index of 8 or more is a highly erodible soil map unit.

Water Erosion

Potential erodibility for sheet and rill erosion is estimated by multiplying the following factors of the Universal Soil Loss Equation (USLE):

1. Rainfall and runoff factor (R)

2. Susceptibility of the soil to water erosion (K)

3. Combined effects of slope length and steepness (LS)

The erodibility index for sheet and rill erosion is represented by the formula RKLS/T. A soil map unit is highly erodible if the LS factor for the shortest length and minumum percent of slope is used and the RKLS/T value equals or exceeds 8.

A soil map unit is potentially highly erodible if: (1) the RKLS/T value using the minimum LS factor is less than 8 and (2) the RKLS/T value using the maximum LS factor is equal to or greater than 8.

Highly Erodible Soils

When surface vegetation is removed from large areas of land, soil erosion often results. Sediment, the result of erosion, has a number of adverse effects as a pollutant. In suspension it reduces the amount of sunlight available to aquatic plants, covers fish spawning areas and food supplies and clogs gills of fish. Phosphorus moves into receiving waters attached to soil particles. Excessive quantities can cause algae blooms. Sediment fills drainage ditches, road ditches and stream channels and shortens the life of reservoirs.

Highly erodible soils are those soils that have a potential to erode at a rate far greater than what is considered tolerable soil loss. The potential erodibility of a soil takes into consideration a) rainfall and runoff, b) the susceptibility of the soil to erosion and c) the combined effects of slope length and steepness. A highly erodible soil has a potential erodibility that would cause a considerable decline in long term productivity of that soil as well as possible negative effects on water quality.

HIGHLY ERODIBLE SOILS IN YORK COUNTY

Publication Symbol	Map Unit Name
AlC	ALLAGASH VERY FINE SANDY LOAM, 8 TO 15 PERCENT SLOPES
BeD	BECKET VERY STONY FINE SANDY LOAM, 15 TO 25 PERCENT SLOPES
BcD	BECKET FINE SANDY LOAM,15 TO 40 PERCENT SLOPES
BuD	BUXTON SILT LOAM, 15 TO 25 PERCENT SLOPES
CoD	COLTON GRAVELLY LOAMY COARSE SAND, 15 TO 25 PERCENT SLOPES
CoE	COLTON GRAVELLY LOAMY COARSE SAND, 25 TO 45 PERCENT SLOPES
HeD	HERMON FINE SANDY LOAM, 15 TO 25 PERCENT SLOPES
HnE	HERMON EXTREMELY STONY FINE SANDY LOAM, 15 TO 60 PERCENT SLOPES
LnC	LYMAN FINE SANDY LOAM, 8 TO 15 PERCENT SLOPES
LnD	LYMAN FINE SANDY LOAM, 15 TO 25 PERCENT SLOPES
LyE	LYMAN-ROCK OUTCROP COMPLEX, 15 TO 80 PERCENT SLOPES
MrD2	MARLOW FINE SANDY LOAM, 15 TO 25 PERCENT SLOPES, ERODED
MvD	MARLOW VERY STONY FINE SANDY LOAM, 15 TO 25 PERCENT SLOPES
RoE	ROCK OUTCROP-LYMAN COMPLEX, 15 TO 80 PERCENT SLOPES
SeC	SCIO SILT LOAM, 8 TO 15 PERCENT SLOPES
SeD	SCIO SILT LOAM, 15 TO 25 PERCENT SLOPES